

Amendments to the Specification:

Please replace the paragraph beginning on page 1, line 22, with the following amended paragraph:

In contrast to the above, the extensive use of on-chip cache memories have ~~became~~become essential to sustain the memory bandwidth demand of the CPU. The advances in semiconductor technology and continuous down scaling of feature size creates extra-space for additional functionality on single chip. The most popular way to make use of this extra space is integrating a cache of bigger size so that a microprocessor is able to gain higher performance. However, an increase in the circuit density is closely coupled with an increase in probability of defects. Caches constitute a redundant structure which is employed to enhance the performance of the CPU. One method to tolerate faults in the cache is providing spare cache blocks. The defective block is switched to a spare block by a reconfiguration mechanism, or by providing small fully associative cache to dynamically replace the faulty block.